

**SAS Superstructure**

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 21-Nov-14

Time 11:26 PM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 528 Const Calendar Day: 917 Date: 13-Mar-2012 Tuesday

Inspector Name: Bruce, Matt Title: Transportation Engineer

Inspection Type: Continuous

Shift Hours: 12:00 am 08:30 pm Break: 00:30 Over Time:

Federal ID:

Location:

Reviewer: Schmitt, Alex

Approved Date:

Status: Submit

**04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge****Weather****Temperature** 7 AM 40 - 50 12 PM 50 - 60 4PM 50 - 60**Precipitation** 0.86"**Condition** Rain w/extremely high windsWorking Day ☐ If no, explain:**Diary:**

Dispute

Work description.

- Continued to shoot the W-Line suspender brackets using the total station with the assistance of Sami Daouk and Damon Brown. The survey began at 9:00pm yesterday March 12th, and the survey went into the early morning today Tuesday March 13th. The suspender brackets from panel point 12 to 110 were shot along the W-Line OBG along with a few check shots over to the E-Line suspender brackets to tie-in the two surveys.

To reiterate the wind was steady through the night/early morning and wind speeds reached 20mph according to weather.com. However the winds were coming from the south and we were shooting the W-Line suspender brackets on the north side of the bridge. The locations where the total station was set up was fairly protected from the moderate to high winds as obstructions diverted and dissipated the wind. Also the corner cube was used for most of the shots essentially eliminating plumbness of the target out of the equation. The survey was completed today at or around 2:30am. By the time we completed the survey the wind speed increased over 20mph and the rain began to fall.

- Continued to prepared for this mornings cable strand adjustments after surveying the W-Line suspender brackets.

- Daryoush Bahar, Sami Dauok, Michelle Chui, Damon Brown, and myself checked the out to out distance for the cable strands today. Damon and I were responsible for both the north/south sidespans today. Similarly Sami and Daryoush were responsible for checking the north/south mainspans. Roman and Damon assisted me with the measurements and tabulating the data as I took all of the measurements unless otherwise noted. I used the Maletic gauge (#1) to take the out to out measurements of the cable strands.

All measurements by both crews were reported to Michelle who was stationed in the Caltrans conex recording and analyzing the data. When all of the measurements were completed, Michelle was responsible for reviewing the measurements with ABF engineer Zach Lauria. See Michelle's diary for more details related to the acceptance or rejection of cable strand sag adjustment.

The green dual function anemometer and digital thermometer was used to measure the ambient temperature and wind speeds. Wind speeds were also obtained from weather.com at the time of the measurements. No steel temperature measurements were taken today with the digital thermometer.

- At or around 4:00am myself and Damon were ready to measure both the north and south sidespans with ABF surveyors. ABF engineer Zach Lauria was also at this location during this time assessing the conditions before deciding what to do. Zach verbally told myself, Damon, and the ABF surveyors that the



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operation was canceled today. The catwalks were galloping up and down due to the high wind speeds at this time which had reached 30+mph.

We waited in the Caltrans conex to see if the conditions improved as time passed which it did not during this time. Zach confirmed again that the operation was called off at 5:26am after Michelle called him. He conveyed to Michelle that the operation to measure the cable strand sag adjustment was "not going to take place today" and that "you guys (Caltrans) can do whatever you want". After we received this message myself, Michelle, Bob, Roman, Sami, Damon, and Daryoush proceeded back to the office.

- I received a call from Zach at 6:14am as he stated that "ABF would like to get cable strand number 88 bought-off" and that "the conditions have improved for measuring". At this time I informed everyone with Caltrans involved with the operation to head back out to the bridge, to perform this unreasonable request by the Contractor.

The official sunrise time per weather.com for San Francisco today was at 7:23am. It should be reiterated that day-light savings time was implemented Sunday March 11th. The following measurements were taken of the relative sag from cable strand number 1 at the given times below:

// South Sidespan //

Time = 6:45am

Ambient Temperature = 53.0F

Condition = Rain and EXTREMELY HIGH WINDS

Wind = S @ 30+mph

ABF Surveyor(s) = James Allen and Ken Woon

Caltrans Engineer(s) = Matt Bruce, Damon Brown, and Roman Granados

Cable Strand (mm)	Steel Temperature (F)	O-O (#1) CT (mm)	Theor (mm)	CT Delta
1	N/A	Baseline or Zero	78	0
88	N/A	605 (-61) = 544	555	- 11
88	N/A	606 (-61) = 545	555	- 10
91	N/A	781 (-61) = 720	756	- 36

Comments: All cable strands were considered to be free-hanging at the time of measurement on the south sidespan. I took all of the measurements while Roman assisted me with setting up the targets, being level, normal to cable, etc. A timber block was used on cable strand number 1 to obtain all of the measurements where the dimension is in () millimeters. Due to the high winds speeds the observed cable strand oscillations were +/- 50mm (range 100mm). Since the contractor was attempting to measure the cable strands in this severe weather condition we were obligated to measure as well. It was determined that the conditions were not acceptable for verifying that the correct cable strand sag adjustment was made by the Contractor.

- Roman and myself determined that there was not point in continuing to measure cable strand sag adjustments after attempting to perform the task on the south sidespan. Daryoush and Sami were also directed by myself and Roman to abandon the operation since it was dangerous to be on the catwalks during these high winds and to achieve acceptable measurements. All of the measurement crews proceeded to take cover in the Caltrans Conex box and further discuss the situation at hand and the options when dealing with the Contractor.

At this time Damon, Sami, and myself were directed by Roman to leave for the day. All three of us were fatigued since we surveyed through the night in the inclement weather and were asked to come back from the office to work in these unsafe conditions. It was a prudent move since these events could prevent us from safely and efficiently performing our duties.

- See Michelle, Daryoush, Roman and Bob's diaries regarding the ensuing measurements taken on cable strand number 88 as the conditions slightly improved through the morning. All of the prescribed

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measurements were completed after I left this morning. The ironworkers began their shift at 5:00am at the tower saddle and at the east anchorages. See Roman Granados's diary for comments, labor, and equipment at the tower saddle. See Bob Brignano's diary for comments, labor, and equipment at the east anchorage.

- Myself, Sami, and Damon began our shift today at 12:00am and stopped at 8:30am with a 30minute break in between (8hrs).